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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,702	07/20/2001	Andrei W. Konradi	002010-680	2073

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06/30/2003

Gerald F. Swiss
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER

TRUONG, TAMTHOM NGO

ART UNIT

PAPER NUMBER

1624

DATE MAILED: 06/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,702

Applicant(s)

KONRADI ET AL.

Examiner

Tamthom N. Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-27 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

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DETAILED ACTION

Applicant's amendment of 4-2-03 has been fully considered. While the amendment overcome the previous rejection of 112/2nd, it has not overcome the rejection of 112/1st. The support on pages 59 and 60 does not suffice the requirement for enablement. Furthermore, the relied references seem to have incorrect citations because they cannot be retrieved by said publication years, volume, and page.

The pending claims (1-27) cover such a large genus that no meaningful search can be carried out without the following restriction.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-3, 6-14, and 17-27 (part of each), drawn to compounds of formula (Ia) or (Ib) with the following substituents:

Ar¹ is pyrimdinyl;
B (or C) is pyridon or pyrimidon;
Ar² is aryl,
Or compounds of formula (IIa), or (IIc),

their pharmaceutical compositions and methods of treatment;

classified in class 544, subclasses 295, 296.

- II. Claims 1-3, 6-11, 13, 14, and 17-27 (part of each), drawn to compounds of formula (Ia) or (Ib) with the following substituents:

Ar¹ is pyridazinyl;
B (or C) is pyridon or pyrimidon;

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Ar² is aryl,
Or compounds of formula (IIb),

Their pharmaceutical compositions and methods of treatment;

classified in class 544, subclass 238.

III. Claims 1-3, 6-14, and 17-27 (part of each), drawn to compounds of formula (Ia)

or (Ib) with the following substituents:

Ar¹ is pyrazinyl;
B (or C) is pyridon or pyrimidon;
Ar² is aryl,
Or compounds of formula (IIId),

Their pharmaceutical compositions and methods of treatment;

classified in class 544, subclasses 359, 360.

IV. Claims 1-3, 6-14, and 17-27 (part of each), drawn to compounds of formula (Ia)

or (Ib) with the following substituents:

Ar¹ is dioxo-1,2,3-thiadiazolyl;
B (or C) is pyridon or pyrimidon;
Ar² is aryl,
Or compounds of formula (IIe),

Their pharmaceutical compositions and methods of treatment;

classified in class 544, subclass 369.

V. Claims 1, 4-12, and 15-27 (part of each), drawn to compounds of formula (Ia) or

(Ib) with the following substituents:

Ar¹ is pyrimidinyl;
B (or C) is bicyclic;
Ar² is aryl,
Or compounds of formula (IIa), or (IIc),

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Their pharmaceutical compositions and methods of treatment;
classified in class 544, subclasses 349, 350.

- VI. Claims 1, 4-11, and 15-27 (part of each), drawn to compounds of formula (Ia) or (Ib) with the following substituents:

Ar¹ is pyridazinyl;
B (or C) is bicyclic;
Ar² is aryl,
Or compounds of formula (IIb),

Their pharmaceutical compositions and methods of treatment;
classified in class 544, subclasses 235, 236, etc.

- VII. Claims 1, 4-12, and 15-27 (part of each), drawn to compounds of formula (Ia) or (Ib) with the following substituents:

Ar¹ is pyrazinyl;
B (or C) is bicyclic;
Ar² is aryl or heteroaryl,
Or compounds of formula (IIc),

Their pharmaceutical compositions and methods of treatment;
classified in class 544, subclasses 350, 354, etc.

- VIII. Claims 1, 4-12, and 15-27 (part of each), drawn to compounds of formula (Ia) or (Ib) with the following substituents:

Ar¹ is dioxo-1,2,3-thiadiazolyl;
B (or C) is bicyclic;
Ar² is aryl or heteroaryl,
Or compounds of formula (IIe),

Their pharmaceutical compositions and methods of treatment;

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classified in class 544, subclasses 233, 278-280.

- IX. Claims 1, 6-12, and 15-27 (part of each), drawn to compounds of formula (Ia) or (Ib) with the following substituents:

Ar¹ is pyrimdinyl;
B (or C) is tricyclic;
Ar² is aryl or heteroaryl,
Or compounds of formula (IIa), or (IIc),

Their pharmaceutical compositions and methods of treatment;

classified in class 544, subclasses 249, 250.

- X. Claims 1, 6-11, and 15-27 (part of each), drawn to compounds of formula (Ia) or (Ib) with the following substituents:

Ar¹ is pyridazinyl;
B (or C) is tricyclic;
Ar² is aryl or heteroaryl,
Or compounds of formula (IIb),

Their pharmaceutical compositions and methods of treatment;

classified in class 544, subclass 234+.

- XI. Claims 1, 6-12, and 15-27 (part of each), drawn to compounds of formula (Ia) or (Ib) with the following substituents:

Ar¹ is pyrazinyl;
B (or C) is tricyclic;
Ar² is aryl or heteroaryl,
Or compounds of formula (IIId),

Their pharmaceutical compositions and methods of treatment;

classified in class 544, subclasses 344, 345, etc.

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- XII. Claims 1, 6-12, and 15-27 (part of each), drawn to compounds of formula (Ia) or (Ib) with the following substituents:

Ar¹ is dioxo-1,2,3-thiadiazolyl;
B (or C) is tricyclic;
Ar² is aryl or heteroaryl,
Or compounds of formula (Ile),

Their pharmaceutical compositions and methods of treatment;
classified in class 544, subclass 344+.

- XIII. Claims 1-3, 6-14, and 17-27 (part of each), drawn to compounds of formula (Ia) or (Ib) with the following substituents:

Ar¹ is pyrimdinyly;
B (or C) is pyridon or pyrimidon;
Ar² is heteroaryl,
Or compounds of formula (IIa), or (IIc),

Their pharmaceutical compositions and methods of treatment;
classified in class 544, subclasses 3+, 53+, 63+, 70, 88+, 98+, 180+, 224+,
230,233, etc.

- XIV. Claims 1-3, 6-11, 13, 14, and 17-27 (part of each), drawn to compounds of formula (Ia) or (Ib) with the following substituents:

Ar¹ is pyridazinyl;
B (or C) is pyridon or pyrimidon;
Ar² is heteroaryl,
Or compounds of formula (IIb),

Their pharmaceutical compositions and methods of treatment;

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classified in class 544, subclasses 3+, 53+, 63+, 70, 88+, 98+, 180+, 224+,
230,233, etc.

- XV. Claims 1-3, 6-14, and 17-27 (part of each), drawn to compounds of formula (Ia)
or (Ib) with the following substituents:

Ar¹ is pyrazinyl;
B (or C) is pyridon or pyrimidon;
Ar² is heteroaryl,
Or compounds of formula (IIId),

Their pharmaceutical compositions and methods of treatment;

classified in class 544, subclasses 3+, 53+, 63+, 70, 88+, 98+, 180+, 224+,
230,233, etc.

- XVI. Claims 1-3, 6-14, and 17-27 (part of each), drawn to compounds of formula (Ia)
or (Ib) with the following substituents:

Ar¹ is dioxo-1,2,3-thiadiazolyl;
B (or C) is pyridon or pyrimidon;
Ar² is heteroaryl,
Or compounds of formula (IIe),

Their pharmaceutical compositions and methods of treatment;

classified in class 544, subclasses 3+, 53+, 63+, 70, 88+, 98+, 180+, 224+,
230,233, etc.

The inventions of groups I to XVI differ from each other because each group is drawn to a ring system that is distinct and patentable over each other. Essentially, these are sixteen independent inventions as compounds of one group can be utilized alone, and not in combination

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of those in other groups. Note, with a variable core as such, the common property is not enough to keep all sixteen groups in the same Markush claim. Furthermore, a prior art that renders obvious one invention would not do so to the other. Thus, restriction for examination purpose as indicated is proper. However, should applicant traverse on the ground that the sixteen groups are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the sixteen groups to be obvious variant or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the invention unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Due to the complexity of the grouping, this written restriction is presented. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamthom N. Truong whose telephone number is 703-305-4485. The examiner can normally be reached on M-F (9:30-5:00) & every Saturday morning (starting from 4-7-03).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mukund Shah can be reached on 703-308-4716. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4556 for regular communications and 703-308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.



T. Truong

June 27, 2003



JOHN M. FORD
PRIMARY EXAMINER
GROUP - ART UNIT 1624